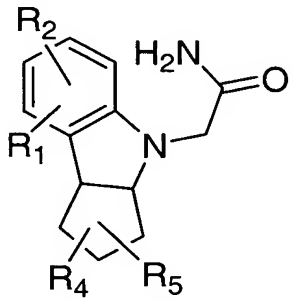
Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims

1. (Withdrawn) A compound of the formula:



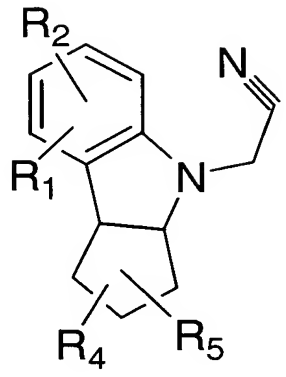
wherein R_1, R_2, R_4 and R_5 are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1 to 6 carbon atoms, -CN, -NH-SO_2-alkyl of 1-6 carbon atoms, -SO_2-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl.

2. (Withdrawn) A compound of Claim 1 wherein R_1 and R_2 are hydrogen, and R_4 and R_5 are as defined in Claim 1.

3. (Withdrawn) A compound of Claim 1 wherein R_1, R_2 and R_4 are hydrogen, and R_5 is as defined in Claim 1.

4. (Withdrawn) A compound of Claim 1 which is 2-(2,3,3a,8b-Tetrahydro-1*H*-cyclopenta[*b*]indol-4-yl)-acetamide.

5. (Withdrawn) A compound of the formula:



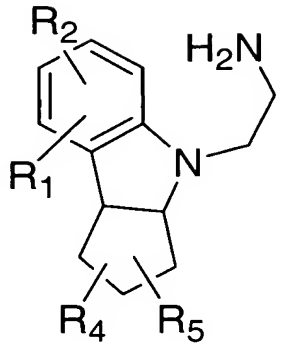
wherein R_1, R_2, R_4 and R_5 are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1 to 6 carbon atoms, -CN, -NH-SO_2-alkyl of 1-6 carbon atoms, -SO_2-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl.

6. (Withdrawn) A compound of Claim 5 wherein R_1 and R_2 are hydrogen, and R_4 and R_5 are as defined in Claim 1.

7. (Withdrawn) A compound of Claim 5 wherein R_1, R_2 and R_4 are hydrogen, and R_5 is as defined in Claim 1.

8. (Withdrawn) A compound of Claim 5 which is 2-(2,3,3a,8b-Tetrahydro-1*H*-cyclopenta[*b*]indol-4-yl)-acetonitrile.

9. (Withdrawn) A compound of the formula:



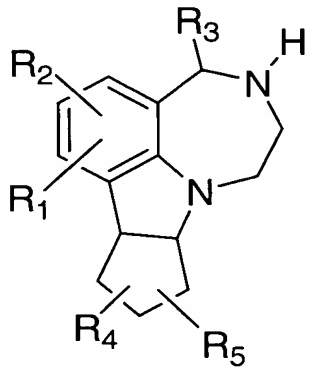
wherein R_1, R_2, R_4 and R_5 are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1 to 6 carbon atoms, -CN, -NH-SO_2-alkyl of 1-6 carbon atoms, -SO_2-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl.

10. (Withdrawn) A compound of Claim 9 wherein R_1 and R_2 are hydrogen, and R_4 and R_5 are as defined in Claim 1.

11. (Withdrawn) A compound of Claim 9 wherein R_1, R_2 and R_4 are hydrogen, and R_5 is as defined in Claim 1.

12. (Withdrawn) A compound of Claim 9 which is 2-(2,3,3a,8b-Tetrahydro-1*H*-cyclopenta[*b*]indol-4-yl)- ethylamine.

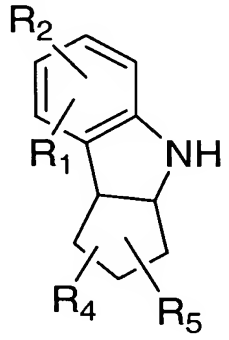
13. (Previously presented) A process for synthesis of a compound of the formula:



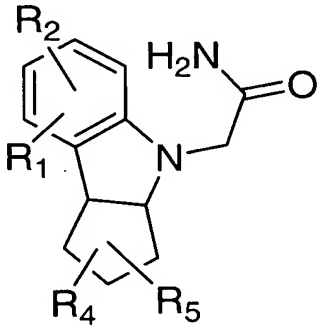
wherein R_1, R_2, R_4 and R_5 are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1 to 6 carbon atoms, -CN, -NH-SO_2-alkyl of 1-6 carbon atoms, -SO_2-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl;

R_3 is hydrogen, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, fluorinated alkyl of from 1 to 6 carbon atoms, -NH-SO_2-alkyl of 1-6 carbon atoms, -SO_2-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl, or aroyl; the process comprising the steps of:

a) converting a cyclopenta[b]indole compound of the formula:

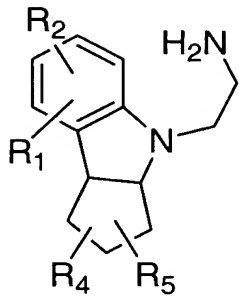


to an optionally substituted cyclopenta[b]indol-4-ylacetamide compound of the formula:



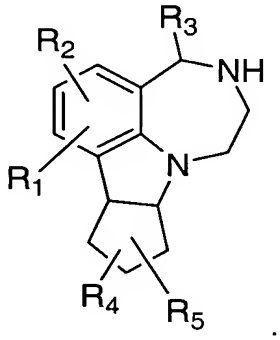
;

b) reducing the optionally substituted cyclopenta[b]indol-4-ylacetamide of step a) to the corresponding optionally substituted cyclopenta[b]indol-4-yl-amine of the formula:

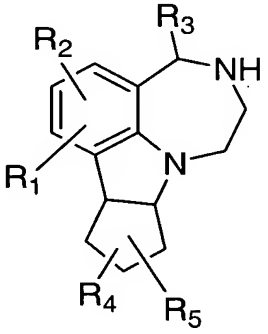


; and

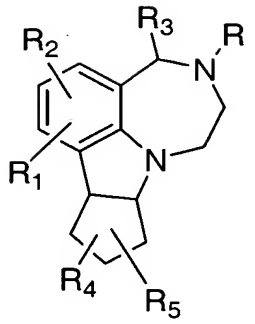
c) cyclizing the cyclopenta[b]indol-4-yl-amine of step b) to an optionally substituted diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:



14. (Previously presented) The process of Claim 13 further comprising the step of treating the diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

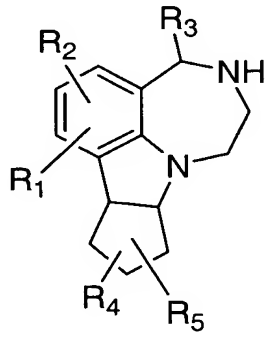


with an alkylating agent to produce a compound of the formula:

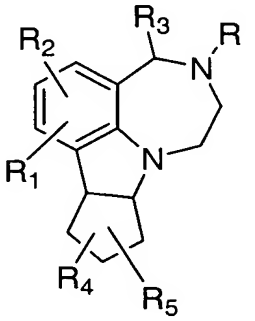


wherein R is alkyl of from 1 to 6 carbon atoms and R_1, R_2, R_3, R_4 and R_5 are as defined in Claim 13.

15. (Previously presented) The process of Claim 13 further comprising the step of treating the diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

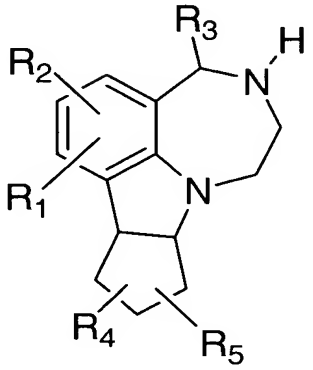


with an acylating agent to produce a compound of the formula:



wherein R is –C(O)R'; R' is alkyl of from 1 to 6 carbon atoms or aryl;
and R_1, R_2, R_3, R_4 and R_5 are as defined in Claim 13.

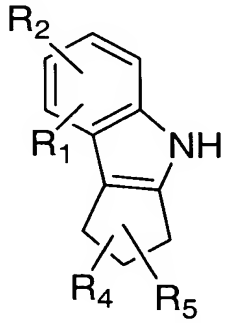
16. (Previously presented) A process for preparing a compound of the formula:



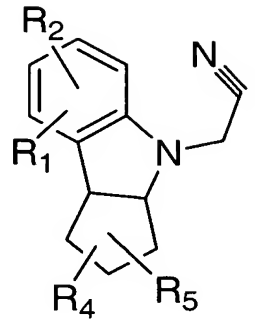
wherein R_1, R_2, R_4 and R_5 are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1 to 6 carbon atoms, -CN, -NH-SO_2-alkyl of 1-6 carbon atoms, -SO_2-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl;

R_3 is hydrogen, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, fluorinated alkyl of from 1 to 6 carbon atoms, -NH-SO_2-alkyl of 1-6 carbon atoms, -SO_2-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl, or aroyl; the process comprising the steps of:

a) converting an optionally substituted cyclopenta[b]indole compound of the formula:

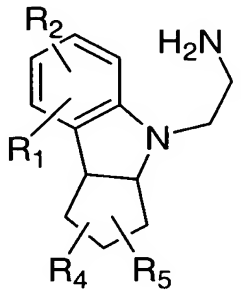


to an optionally substituted nitrile compound of the formula:



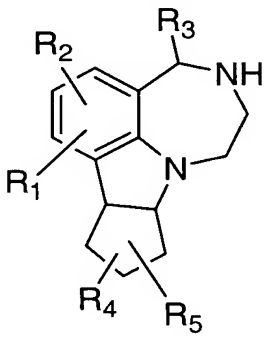
;

b) reducing the optionally substituted nitrile compound of step a) to provide an optionally substituted amine compound of the formula:

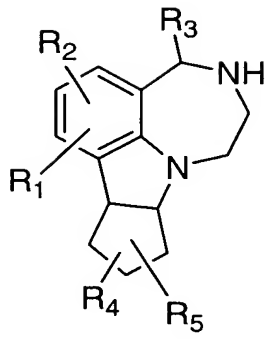


; and

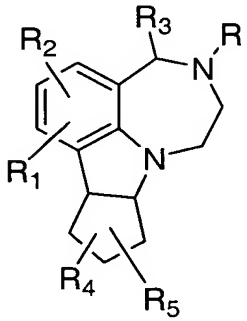
c) cyclizing the amine compound of step b) to an optionally substituted diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:



17. (Previously presented) The process of Claim 16 further comprising the step of treating the diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

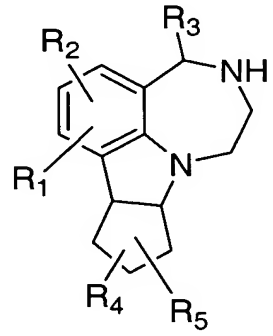


with an alkylating agent to produce a compound of the formula:

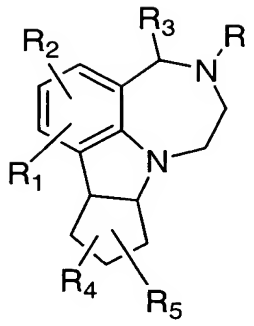


wherein R is alkyl of from 1 to 6 carbon atoms and R_1, R_2, R_3, R_4 and R_5 are as defined in Claim 16.

18. (Previously presented) The process of Claim 16 further comprising the step of treating the diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

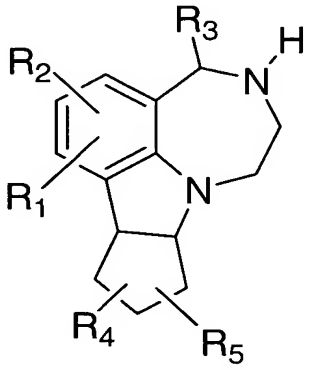


with an acylating agent to produce a compound of the formula:



wherein R is –C(O)R'; R' is alkyl of from 1 to 6 carbon atoms or aryl;
and R_1, R_2, R_3, R_4 and R_5 are as defined in Claim 16.

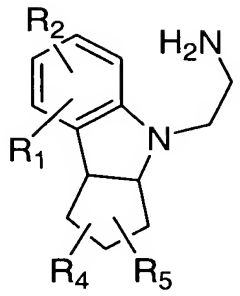
19. (Previously presented) A process for preparing a compound of the formula:



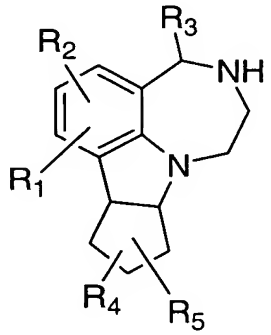
wherein R_1, R_2, R_4 and R_5 are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1 to 6 carbon atoms, -CN, -NH-SO_2-alkyl of 1-6 carbon atoms, -SO_2-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl;

R_3 is hydrogen, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, fluorinated alkyl of from 1 to 6 carbon atoms, -NH-SO_2-alkyl of 1-6 carbon atoms, -SO_2-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl, or aroyl; the process comprising the steps of:

cyclizing an optionally substituted amine compound of the formula:



to provide an optionally substituted diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:



wherein R_1, R_2, R_3, R_4 and R_5 are defined as above.

20. (NEW) The process of Claim 19 wherein the cyclizing comprises reacting the optionally substituted amine compound and an aldehyde.

21. (NEW) The process of Claim 16 wherein the cyclizing comprises reacting the optionally substituted amine compound and an aldehyde.

22. (NEW) The process of Claim 13 wherein the cyclizing comprises reacting the optionally substituted amine compound and an aldehyde.